GAME NO. 630
JANUARY, 1978

# MIDWAY'S CLOWNS PARTS CATALOG




**MIDWAY MFG. CO.**
A BALLY COMPANY
10750 WEST GRAND AVENUE
FRANKLIN PARK, ILLINOIS 60131
U.S.A.

PHONE: (312) 451-1360 CABLE ADDRESS: MIDCO TELEX NO.: 72-1596

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**WARNING**

**THIS GAME MUST BE GROUNDED. FAILURE TO DO SO MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.**

## GENERAL INSTRUCTIONS FOR "CLOWNS"

INSTALLATION:

1. Remove shipping cleats located on the bottom of the cabinet..
2. Install 4 provided leg levelers to bottom of cabinet and level cabinet.
3. The power is controlled by a switch located on top of the cabinet. Plug into A. C. only, 115 volts, 60 cycles. In low line areas (105 volts or less) a boost in the output voltage of the transformer may be obtained by removing the wire from the 115 volt tap of the transformer and rewiring to the 105 volt position.

VOLTAGE CONTROL POT:

Located on Power Supply (P.C. 0080-00904F) and is preset at the factory. These pots should not be tampered with unless the Distributor Service Department is contacted.

METHOD OF PLAY:

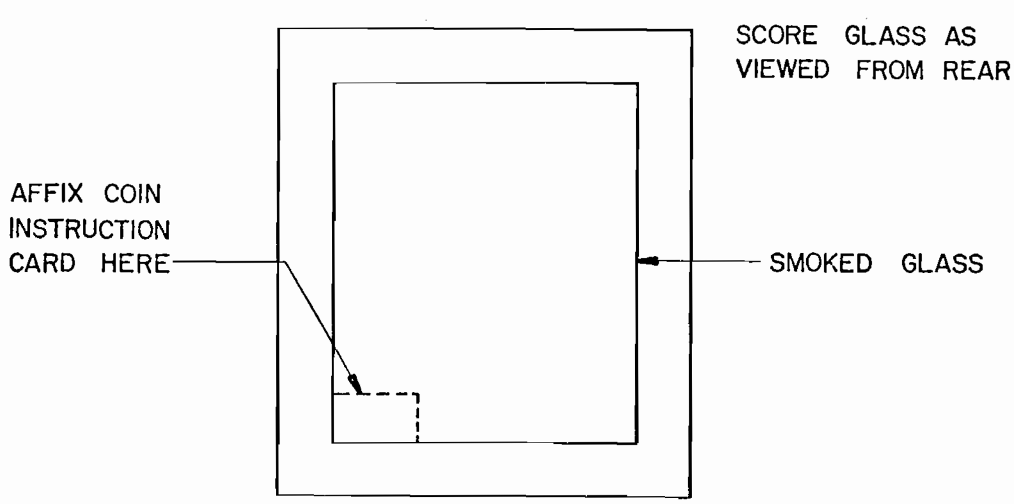
Coin, number of jumps and extra jump adjustment switch located on Game Logic Board (P.C. A 080-90700-B630) and may be adjusted as indicated on separate instruction sheet in back box area.

VARIABLE COIN SETTINGS:

This unit is shipped with the coin adjustment switches (#1 & #2 in "on" position) set in the one coin per play positions. When another coin option is desired, (see separate instructions in back box area) it is necessary to insert an additional coin instruction card.

TO INSERT NEW COIN INSTRUCTION CARD:

1. Remove Display Glass.
2. With the score glass lying face down, lift left corner of smoked glass slightly.
3. Insert New coin instruction card and tape to inside surface of score glass with clear tape.
4. Press smoked glass firmly back into place.



TO SERVICE CONTROL PANEL POTS:

1. Remove Control Panel Cable jack from Game Logic Board.
2. Open front coin door and release (2) clamps located on each side of cabinet wall thru door opening.
3. Remove wire nut between main cable and Control Panel cable thru front door opening.
4. Remove control Panel and service same.

TO ADJUST SPRINGBOARD TRAVEL:

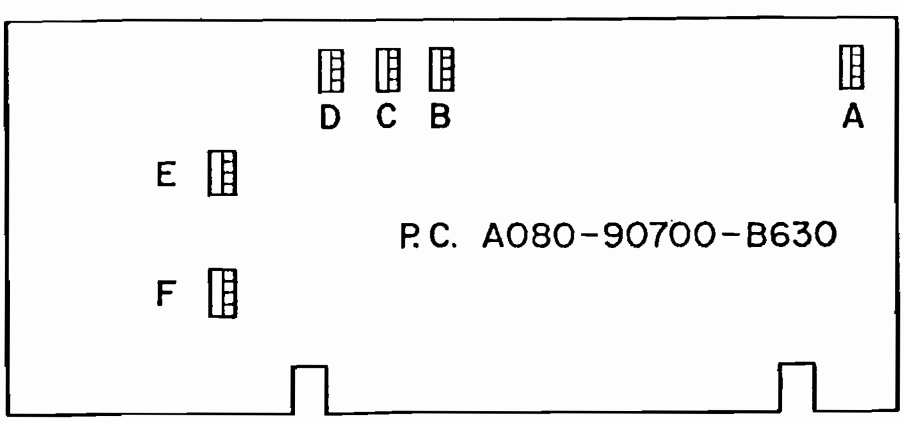
1. Place springboard alignment switch #7 in "OFF" position.
2. Rotate pots, A, B, C and D located on Game Logic Board (P.C. A080-90700-B630) to center position as indicated by arrow on pot faces.
3. Adjust each players control pot (located on Control Panel) to travel from approximately 1K ohms (lower limit) to 9.5K ohms. (upper limit).
4. Rotate player one control pot to left extremity. If springboard does not travel to left edge of screen, trim the travel by rotating pot B (500 ohm) until it does. If springboard over-travels left edge of screen rotate pot B in opposite direction.
5. Rotate Player One control pot to right edge of screen. If springboard does not travel to right edge of screen, trim the travel by rotating pot A (5K ohm) until it does. If spring-board over travels right edge of screen rotate pot A in opposite direction.
6. Repeat steps 3 and 4 using player two control pot. Pot C (5K ohm) controls left edge trim. Pot D (500 ohm) control right edge trim.
7. Reset springboard alignment switch #7 to "ON" position.

VOLUME CONTROL POT:

Located on Game Logic Board (PC A080-90700-B630) raises or lowers all wounds and may be adjusted by rotating pot E as desired.

TONE CONTROL POT:

Located on Game Logic Board (PC A080-90700-B630) varies tone of music as desired by rotating pot F.



## OLD METHOD OF PLAY ADJUSTMENTS

| | SW. 1 | SW. 2 |
|---|---|---|
| 1 COIN = 1 PLAYER<br>2 COINS = 2 PLAYERS | ON | ON |
| 1 COIN = 1 PLAYER<br>1 COIN = 2 PLAYERS | OFF | ON |
| 2 COINS = 1 PLAYER<br>2 COINS = 2 PLAYERS | ON | OFF |
| 2 COINS = 1 PLAYER<br>4 COINS = 2 PLAYERS | OFF | OFF |

## NUMBER OF JUMP ADJUSTMENTS

| | SW. 3 | SW. 4 |
|---|---|---|
| 2 JUMPS PER GAME | ON | ON |
| 3 JUMPS PER GAME | OFF | ON |
| 4 JUMPS PER GAME | ON | OFF |
| 5 JUMPS PER GAME | OFF | OFF |

## BALLOON RESET ADJUSTMENTS

| | SW. 5 |
|---|---|
| BALLOON RESET AFTER KNOCKING OUT EACH ROW | ON |
| BALLOON RESET AFTER KNOCKING OUT ALL BALLOONS | OFF |

## BONUS JUMP ADJUSTMENTS

| | SW. 6 |
|---|---|
| 1 BONUS JUMP AWARDED AT 3000 SCORE | ON |
| 1 BONUS JUMP AWARDED AT 4000 SCORE | OFF |

## SPRINGBOARD ALIGNMENT SWITCH

| | SW. 7 |
|---|---|
| PLAY MODE | ON |
| SPRINGBOARD ALIGNMENT | OFF |

## TEST

| | SW. 8 |
|---|---|
| PLAY MODE | ON |
| RAM-ROM TEST | OFF |

0630–CLNS

## NEW METHOD OF PLAY ADJUSTMENTS

| | SW. 1 | SW. 2 |
|---|---|---|
| 1 COIN = 1 PLAYER<br>2 COINS = 2 PLAYERS | ON | ON |
| 1 COIN = 1 PLAYER<br>1 COIN = 2 PLAYERS | OFF | ON |
| 2 COINS = 1 PLAYER<br>2 COINS = 2 PLAYERS | ON | OFF |
| 2 COINS = 1 PLAYER<br>4 COINS = 2 PLAYERS | OFF | OFF |

| | SW. 3 | SW. 4 |
|---|---|---|
| NO BONUS GAME | ON | ON |
| BONUS GAME AT 9,000 | OFF | ON |
| 11,000 | ON | OFF |
| 13,000 | OFF | OFF |

| | SW. 5 |
|---|---|
| BALLOONS RESET AFTER KNOCKING OUT EACH ROW | ON |
| BALLOONS RESET AFTER KNOCKING OUT ALL BALLOONS | OFF |

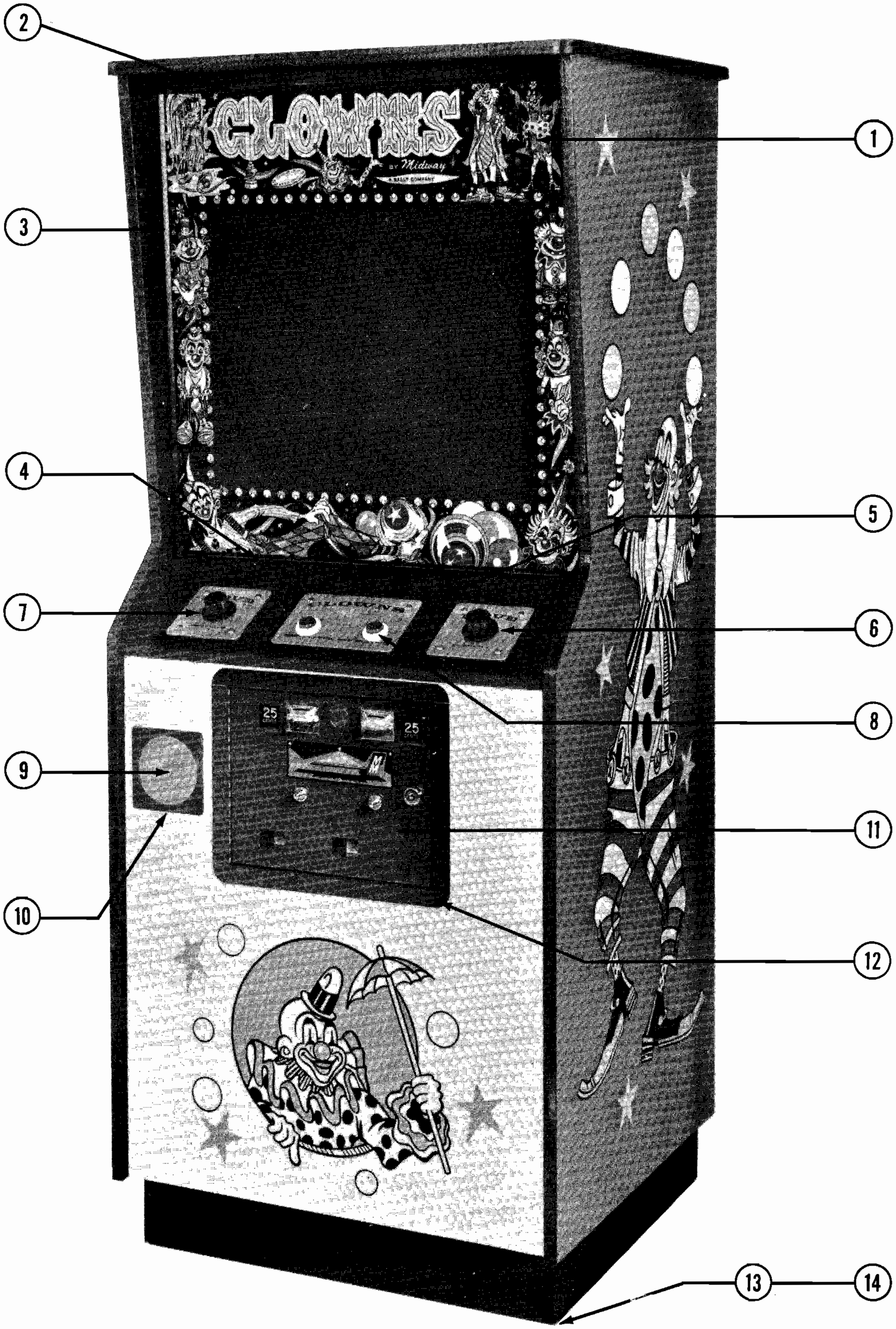
| | SW. 6 |
|---|---|
| 1 BONUS JUMP AWARDED AT 3,000 SCORE | ON |
| 1 BONUS JUMP AWARDED AT 4,000 SCORE | OFF |

| | SW. 7 |
|---|---|
| 3 JUMPS PER GAME | ON |
| 4 JUMPS PER GAME | OFF |

| | SW. 8 |
|---|---|
| PLAY MODE | ON |
| OPEN COIN SW FOR RAM/ROM | OFF |
| CLOSE COIN SW FOR ALIGNMENT SPRING BOARD | |

*Service Bulletin will advise of ROM Changes due to new method of play adjustments and serial no's. of games with new and old method of play adjustments.

## NO. 630 – CLOWNS – PICTURE



# NO. 630 – CLOWNS – PICTURE

*ORDER BY PART NUMBER ONLY*

| ITEM | PART Nº | DESCRIPTION |
|---|---|---|
| 1 | 0630-00900-01SC | DISPLAY PLEX |
| 2 | 0537-00903-3100 | CYCOLAC EDGEING |
| 3 | 0537-00903-3200 | CYCOLAC EDGEING (2 REQ'D.) |
| 4 | 0537-00138-0000 | GLASS LIFT CHANNEL |
| 5 | A630-00007-0000 | CONTROL PANEL ASSY. (INCLUDED ARE ITEMS 6 THRU 8) |
| 6 | A630-00012-0000 | PLAYER #1 CONTROL ASSY. – RIGHT |
| 7 | A630-00013-0000 | PLAYER #2 CONTROL ASSY. – LEFT (SAME ASSY. AS THE RIGHT) |
| 8 | A630-00014-0000 | PUSH BUTTON ASSY. (2 REQ'D.) |
| | 0630-00906-0000 | BUTTON PLATE |
| | 0586-00036-0000 | PUSH BUTTON SWITCH ASSY. (2 REQ'D.) |
| | 0020-00202-0000 | SWITCH PLATE (2 REQ'D.) |
| | 0017-00101-0521 | #5-40 x 3/8 R.H.M.S. (4 REQ'D.) |
| | 0586-00107-0000 | MOUNTING BRACKET (2 REQ'D.) |
| 9 | 0549-00128-0000 | SPEAKER GRILL |
| 10 | 0569-00001-00GR | SPEAKER BEZEL ASSY. |
| | 0017-00003-0161 | SPEAKER |
| | 0017-00041-0576 | SPEAKER GASKET |
| | 0017-00104-0022 | #6 STL. WASHERS (4 REQ'D.) |
| | 0017-00103-0005 | #6-32 HEX NUTS (4 REQ'D.) |
| 11 | A090-00020-02GR | DOUBLE ENTRY COIN DOOR ASSY. |
| 12 | 0090-00002-02GR | COIN DOOR FRAME |
| | 0017-00101-0555 | #6-32 x 5/16 HEX HD. BLK. S.M.S. (3 REQ'D.) (MOUNTS COIN DOOR TO FRAME) |
| 13 | 0017-00102-0048 | LEG LEVELERS (4 REQ'D.) |
| 14 | 0017-00103-0026 | LEG LEVELER NUTS (4 REQ'D.) |
| | | NOT SHOWN LIST |
| | 0017-00003-0189 | 23" MONITOR (CHASSIS & TUBE COMPLETE) |
| | 0017-00101-0639 | #8-32 x 1-1/4 CARRIAGE BOLTS (4 REQ'D.) |
| | 0017-00104-0022 | #8 STEEL WASHER (4 REQ'D.) |
| | 0017-00103-0061 | #8-32 HEX LOCK NUTS S.E.M.S. (4 REQ'D.) |
| | 0080-00101-0000 | FISHPAPER SHIELD |
| | 0017-00009-0033 | BASSICK CLAMP (2 REQ'D.) |
| | 0603-00131-0000 | STRIKE (2 REQ'D.) |
| | 0630-00901-0000 | TUBE MASK |



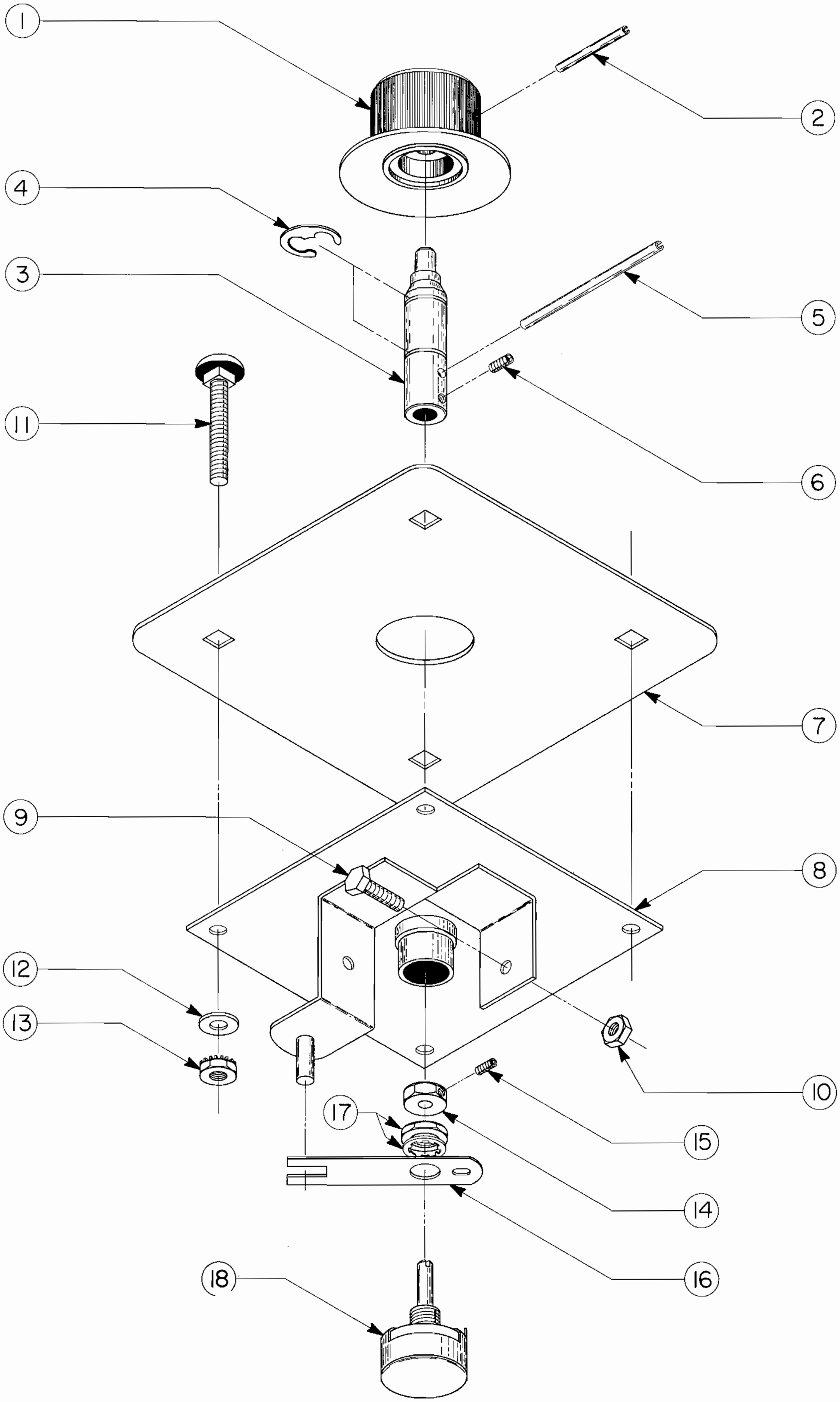
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## NO. 630 – CLOWNS – PICTURE

*ORDER BY PART NUMBER ONLY*

| ITEM | PART Nº | DESCRIPTION |
|---|---|---|
| | 0605-00104-0100 | GLASS LOCK BRKT. (2 REQ'D.) |
| | 0017-00101-0028 | #8 x 3/4 HEX. HD. BLK. WD. SCREW (4 REQ'D.) |
| | 0630-00902-0000 | GRAY PLEXIGLASS – 18" x 22" x 1/8" – #2074 |
| | 0630-00903-0000 | TAPE – 1/2" x 19" |
| | 0630-00904-0100 | CHARTPACK TRANSPARENT TAPE – 3/4" x 20" BLUE |
| | 0630-00904-0200 | CHARTPACK TRANSPARENT TAPE – 3/4" x 20" GRN |
| | 0630-00904-0300 | CHARTPACK TRANSPARENT TAPE – 3/4" x 20" YEL |
| | 0567-00106-0000 | SWITCH PLATE |
| | 0586-00036-0000 | ON-OFF SWITCH |
| | 0630-00504-0000 | DISPLAY INSERT KIT – NOT ON ALL GAMES, BUT MAY BE PURCHASED & INSTALLED ON ANY CLOWN-GAME IF DESIRED. |

# NO. 630 – CLOWNS – PLAYER CONTROL ASSY.

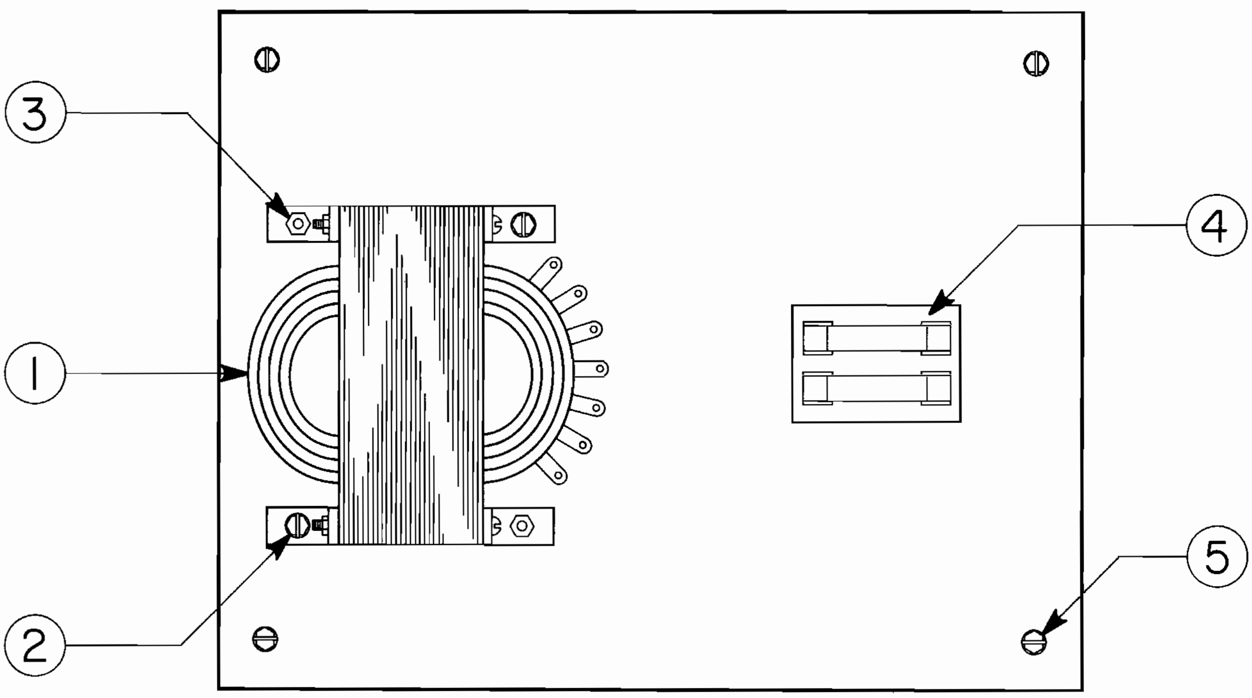


## NO. 630 – CLOWNS – PLAYER CONTROL ASSY.

*ORDER BY PART NUMBER ONLY*

| ITEM | PART Nº | DESCRIPTION |
|---|---|---|
| 1 | A630-00009-0000 | KNOB ASSY. |
| 2 | 0017-00007-0011 | 3/32 x 1-1/8 ROLL PIN |
| 3 | 0630-00700-0000 | SHAFT |
| 4 | 0017-00100-0050 | "E" RING (2 REQ'D.) |
| 5 | 0017-00007-0083 | 1/8 x 1-5/8 ROLL PIN |
| 6 | 0017-00101-0308 | #8-32 x 3/16 SET SCREWS (2 REQ'D.) |
| 7 | 0630-00905-0100 | PLAYER #1 CONTROL PLATE |
| | 0630-00905-0200 | PLAYER #2 CONTROL PLATE (NOT SHOWN) |
| 8 | A630-00008-0000 | MOUNTING PLATE ASSY. |
| 9 | 0017-00101-0704 | #10-32 x 1/2 HEX HD. NYLON M.S. (2 REQ'D.) |
| 10 | 0017-00103-0010 | #10-32 HEX HD. NUT (2 REQ'D.) |
| 11 | 0017-00101-0639 | #8-32 x 1-1/4 CARRIAGE BOLTS (4 REQ'D.) |
| 12 | 0017-00104-0022 | #8 STL. FLAT WASHER (4 REQ'D.) |
| 13 | 0017-00103-0061 | #8-32 HEX LOCKNUT (4 REQ'D.) |
| 14 | 0567-00700-0000 | ADJUSTING NUT |
| 15 | 0017-00101-0302 | #6-32 x 3/16 SET SCREW |
| 16 | 0591-00105-0100 | LOCATOR – POT |
| 17 | | HARDWARE FOR ITEM #18 |
| 18 | 0063-27705-16KX | 25K – POT |
| | A630-00012-0000 | PLAYER #1 CONTROL ASSY. – COMPLETE |
| | A630-00013-0000 | PLAYER #2 CONTROL ASSY. – COMPLETE |

# NO. 630 – CLOWNS – TRANSFORMER BOARD ASSY.




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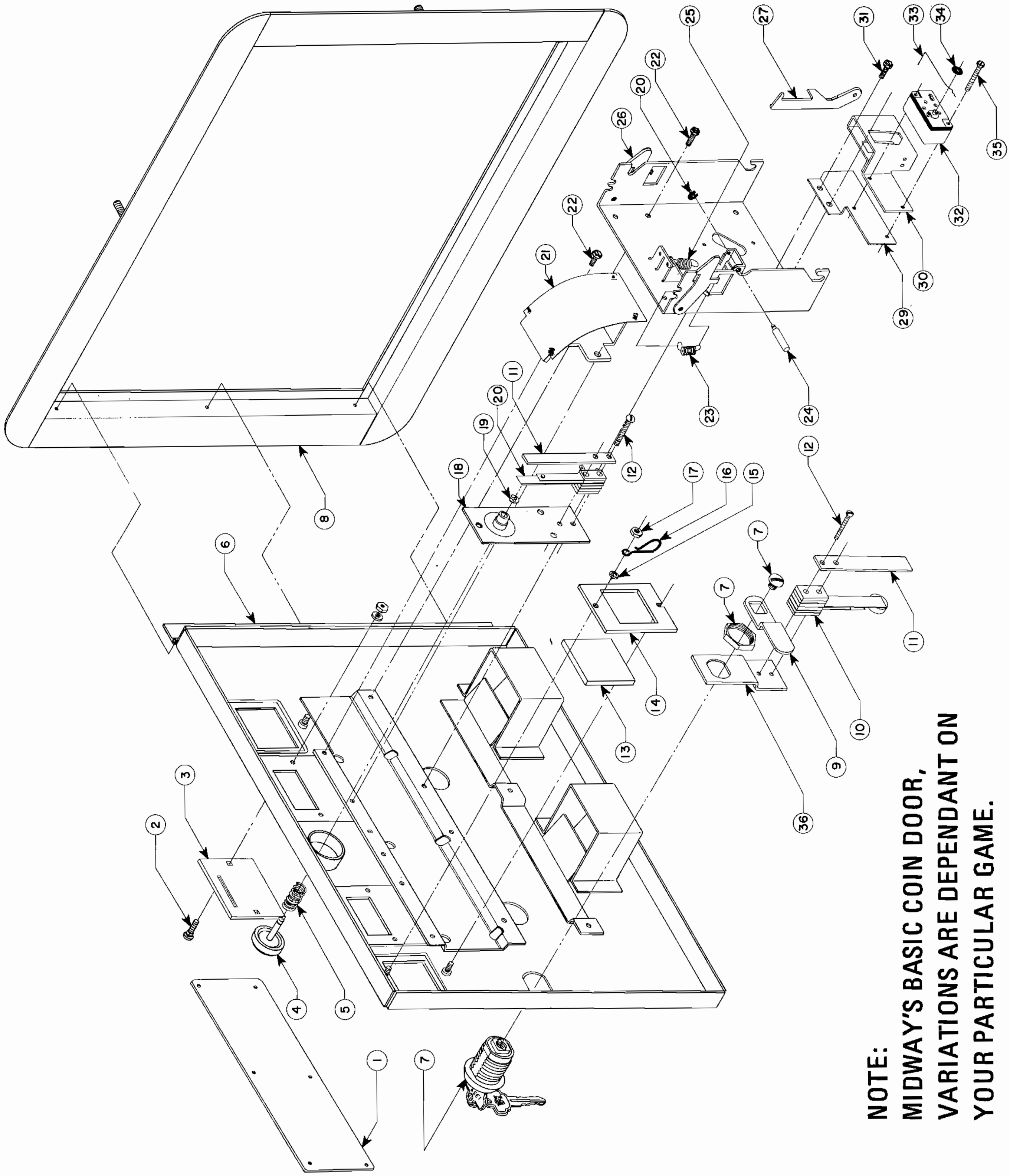
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## NO. 630 – CLOWNS – TRANSFORMER BOARD ASSY.

*ORDER BY PART NUMBER ONLY*

| ITEM | PART No | DESCRIPTION |
|---|---|---|
| 1 | MT00-00058-A000 | TRANSFORMER – 60 CYCLE - OR - |
| | MT00-00059-A000 | TRANSFORMER – 50 CYCLE – (FOREIGN) |
| 2 | 0017-00101-0025 | #8 x 1/2 SLOT. HEX HD. S.M.S. (2 REQ'D.) |
| 3 | 0017-00101-0692 | #8-32 x 7/8 CARRIAGE BOLTS (2 REQ'D.), |
| | 0017-00103-0008 | WITH #8-32 HEX NUT (2 REQ'D.) |
| 4 | 0720-00001-0200 | FUSE BLOCK ASSY. (2 POSITION) |
| 5 | 0017-00101-0030 | #8 x 1" HEX HD. WD. SCREW (4 REQ'D.) |
| | 0017-00101-0017 | #6 x 1/2 HEX HD. S.M.S. (4 REQ'D.) - NOT SHOWN |
| | 0017-00003-0064 | LINE CORD – NOT SHOWN |
| | A630-00015-0000 | TRANSFORMER BOARD ASSY. – COMPLETE |

# NO. 630 – CLOWNS – FRONT DOOR ASSY.



NOTE:
MIDWAY'S BASIC COIN DOOR,
VARIATIONS ARE DEPENDANT ON
YOUR PARTICULAR GAME.

## NO. 630 – CLOWNS – FRONT DOOR ASSY.

*ORDER BY PART NUMBER ONLY*

| ITEM | PART № | DESCRIPTION |
|---|---|---|
| 1 | 0090-00902-0000 | DRESS PLATE |
| | 0090-00902-0100 | DRESS PLATE (W/O PRESS BUTTON TO START GAME) |
| 2 | 0017-00101-0552 | 6-32 x 1/4 CARRIAGE BOLT (2) |
| 3 | 0090-00117-0003 | COIN ENTRY PLATE (25¢) |
| 4 | 0090-00906-0000 | PLASTIC START BUTTON |
| 5 | 0010-00007-0000 | COMPRESSION SPRING |
| 6 | 0090-00013-0200 | DOOR ASSY. DOUBLE ENTRY |
| 7 | 0017-00005-0050 | DOOR LOCK & KEY WITH SCREW & NUT |
| 8 | 0090-00002-02BR | DOUBLE DOOR FRAME |
| 9 | 0017-00005-0041 | 421 N.S. CAM |
| 10 | 0090-00901-0000 | DOOR SWITCH |
| 11 | 0090-00126-012N | SWITCH BACKUP PLATE |
| 12 | 0017-00101-0528 | 5-40 x 3/4" LNG. M.S. |
| 13 | 0090-00903-0040 | 25¢ WINDOW |
| 14 | 0090-00143-0000 | COIN PLEX RETAINER |
| 15 | 0017-00104-0002 | SPLIT LOCK WASHER |
| 16 | 0017-00007-0019 | KEY HOOK |
| 17 | 0017-00103-0005 | 6-32 HEX NUT |
| 18 | 0090-00010-0000 | SW. PLATE & OILLITE ASSY. |
| 19 | 0017-00100-0018 | "E" RING |
| 20 | 0090-00131-0000 | SWITCH |
| 21 | 0090-00104-0000 | TOP & BTM. COIN CHUTE W/BRKT. ASSY. |
| 22 | 0017-00101-0598 | 8-32 x 5/16 SCREW |
| 23 | 0010-00181-0100 | SPRING |
| 24 | 0090-00129-0000 | PIVOT POST |
| 25 | 0010-00134-0000 | SPRING |
| 26 | 0090-00008-0000 | ACCEPTOR FRAME ASSY. |
| 27 | 0093-00155-0000 | REJECTOR LEVER |
| 28 | 0017-00100-0012 | "E" RING |
| 29 | 0093-00151-0000 | COIN GUIDE MTG. BRACKET |
| 30 | 0090-00005-0000 | COIN GUIDE ASSY. |
| 31 | 0017-00101-0555 | 6-32 x 5/16 SCREW |
| 32 | 0017-00005-0039 | COIN SWITCH |
| 33 | 0010-00557-0025 | TRIPWIRE |
| 34 | 0017-00007-0132 | PUSH-ON RING (BIK) |
| 35 | 0017-00101-0507 | #4-36 x 3/4 SCREW |
| 36 | 0090-00128-0000 | SWITCH BRKT. – DOOR TILT |

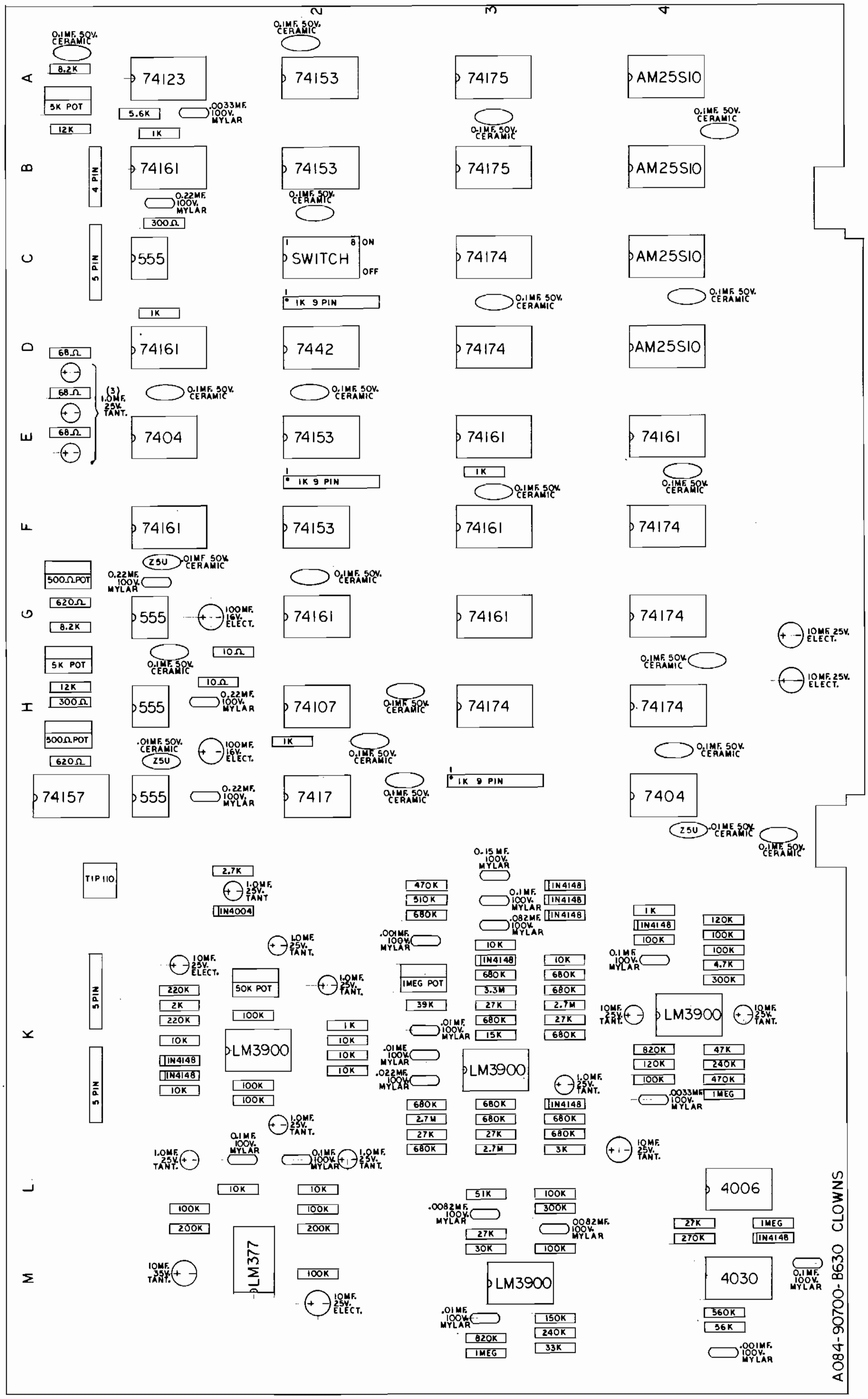
## NO. 630 – CLOWNS – ADDITIONAL PARTS LIST

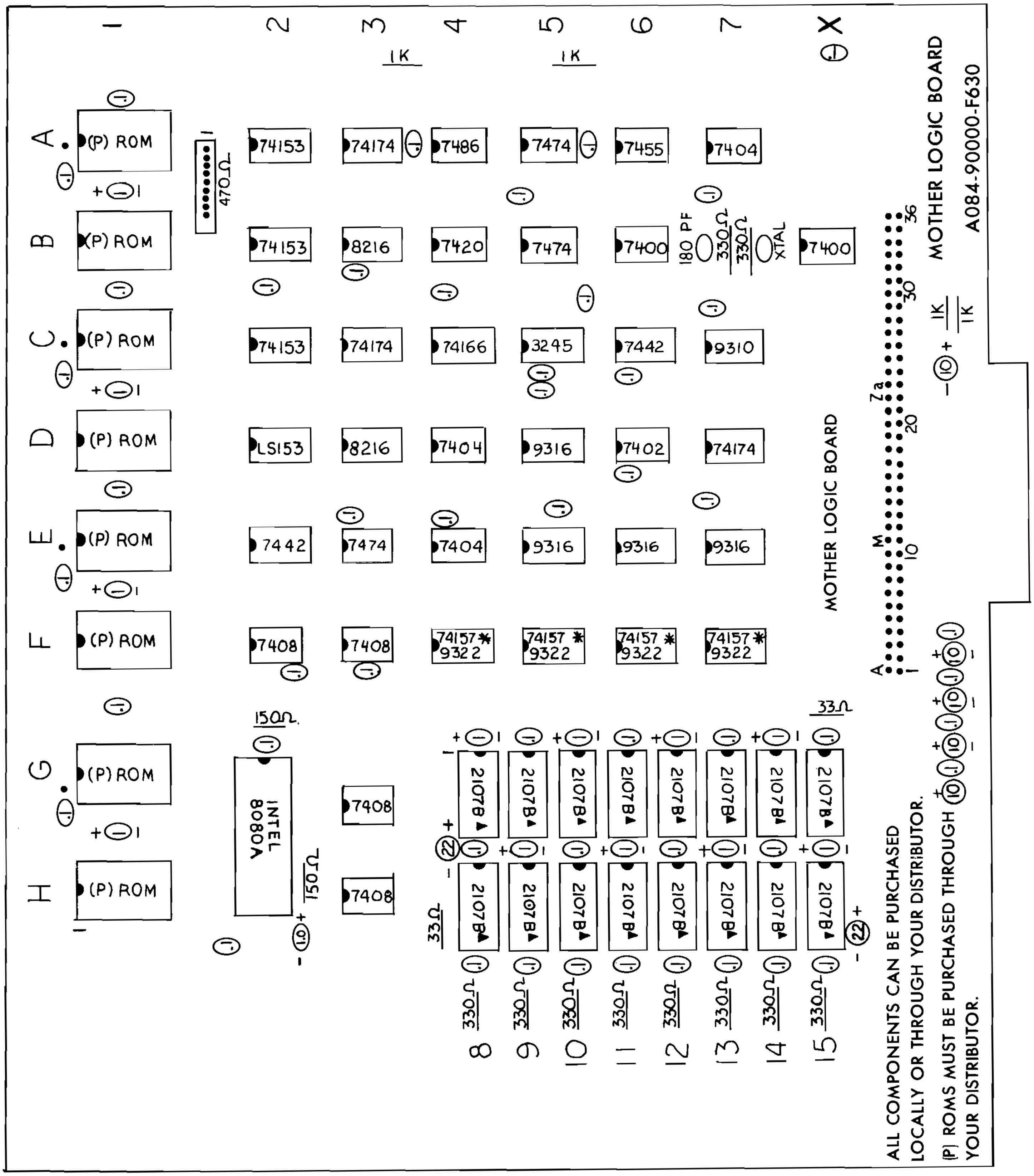
*ORDER BY PART NUMBER ONLY*

| ITEM | PART Nº | DESCRIPTION |
|---|---|---|
| | A630-00003-0000 | UPPER BACK DOOR ASSY. |
| | A630-00002-0000 | LOWER BACK DOOR ASSY. |
| | A623-00110-0000 | COIN BOX ASSY. |
| | A623-00013-0000 | COIN BOX COVER ASSY. |
| | A624-00001-0000 | COIN BOX GUIDE BRKT. ASSY. |
| | 0624-00101-0000 | COIN BOX GUIDE BRKT. |
| | 0017-00101-0628 | #8-32 x 3/4 CARRIAGE BOLTS (4 REQ'D.) |
| | 0017-00104-0022 | #8 STEEL WASHER (4 REQ'D.) |
| | 0017-00103-0008 | #8-32 HEX NUT (4 REQ'D.) |
| | 0017-00003-0102 | COIN METER (MOUNTED ON COIN DOOR) |
| | 0017-00009-0009 | TURN BUTTONS (2 REQ'D.) |
| | 0017-00101-0028 | #8 x 3/4 HEX HD. WD. SCREWS (2 REQ'D.) |
| | 0582-00100-0000 | VENT SCREENS (2 REQ'D.) |
| | A630-00014-0000 | PUSH BUTTON ASSY. – (MAKING UP THE NEXT 6 PART NUMBERS.) |
| | 0630-00907-0000 | BUTTON (0017-00009-0384) DYED RED |
| | 0017-00009-0376 | HOUSING |
| | 0010-00242-0000 | SPRING |
| | 0017-00104-0028 | FLAT WASHER |
| | 0017-00100-0025 | "E" RING |
| | 0017-00103-0054 | PAL NUT |
| | A630-00006-0000 | MOTHER & GAME BOARD ASSY. |
| | A084-90000-F630 | MOTHER BOARD ASSY. |
| | A084-90700-B630 | GAME BOARD ASSY. |
| | A630-00015-0000 | TRANSFORMER BOARD ASSY. |
| | A082-90400-E000 | POWER SUPPLY BOARD ASSY. |
| | 0597-00012-0100 | P.C. SUPPORT BRKT. ASSY. – RIGHT HAND |
| | 0597-00012-0200 | P.C. SUPPORT BRKT. ASSY. – LEFT HAND |
| | 0624-00902-0100 | P.C. SUPPORT BRKT. – 12" (4 REQ'D.) |
| | 0624-00902-0300 | P.C. SUPPORT BRKT. – 2-1/2 (4 REQ'D.) |
| | 0017-00101-0025 | #8 x 1/2 HEX HD. WD. SCREWS (16 REQ'D.) FOR ALL P.C. SUPPORT BRKTS.) |
| | 0017-00009-0419 | PIN EXTRACTOR TOOL (PIN POPPER) |



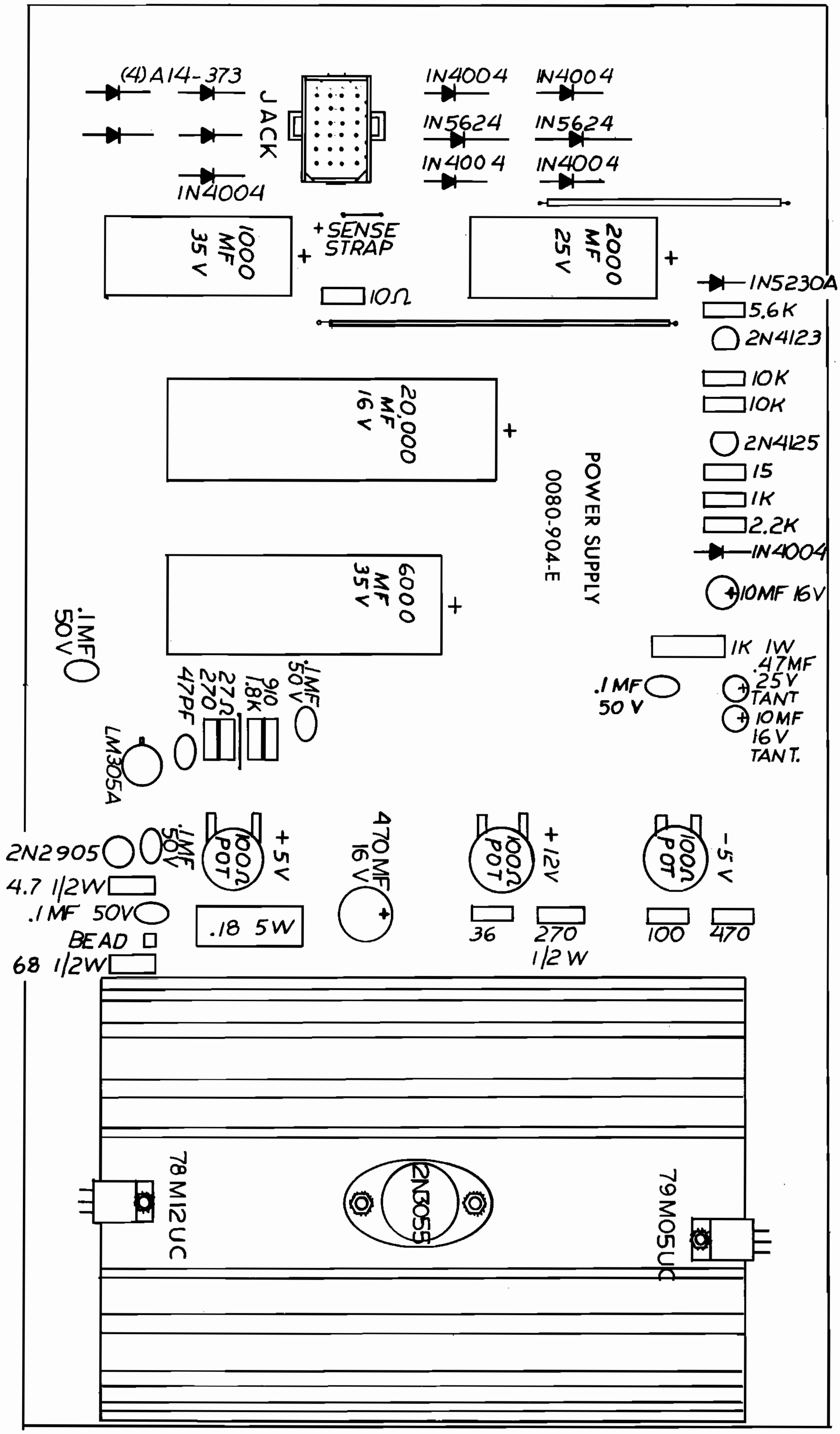
**MIDWAY MFG. CO.**
A BALLY COMPANY


A084-90700-B630 CLOWNS
A
B
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D
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K
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M
2
3
4
74123
74153
74175
AM25S10
74161
74153
74175
AM25S10
555
SWITCH
ON
OFF
74174
AM25S10
74161
7442
74174
AM25S10
7404
74153
74161
74161
74161
74153
74161
74174
555
74161
74161
74174
555
74107
74174
74174
74157
555
7417
7404
TIP 110
LM3900
LM3900
LM3900
LM3900
LM377
4006
4030
5K POT
500Ω POT
50K POT
1MEG POT
1K 9 PIN
4 PIN
5 PIN
0.1MF. 50V. CERAMIC
0.22MF. 100V. MYLAR
.0033MF. 100V. MYLAR
100MF. 16V. ELECT.
10MF. 25V. ELECT.
1.0MF. 25V. TANT.
Z5U

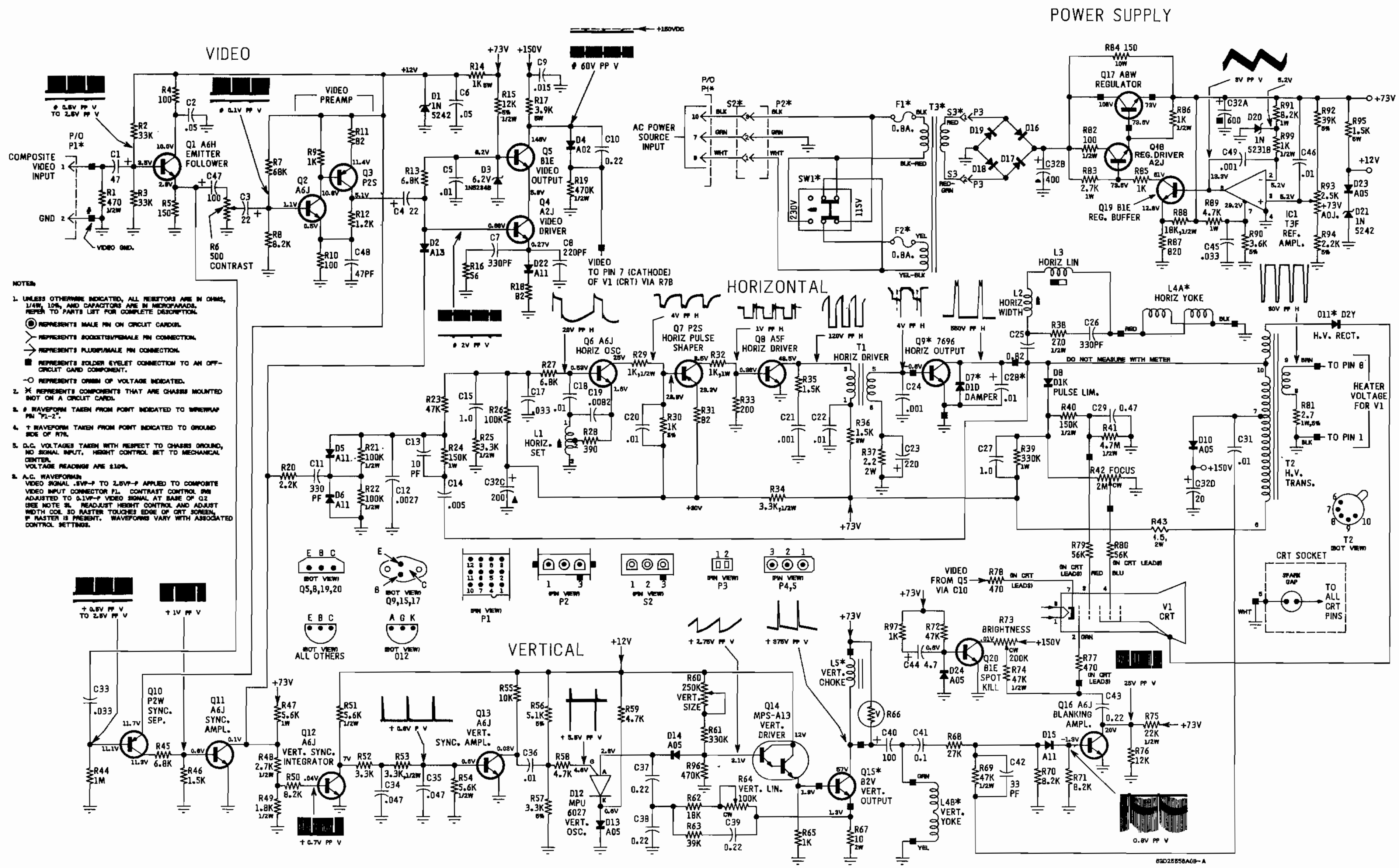



ALL COMPONENTS CAN BE PURCHASED LOCALLY OR THROUGH YOUR DISTRIBUTOR.

[P] ROMS MUST BE PURCHASED THROUGH YOUR DISTRIBUTOR.



(4) A14-373
IN4004
JACK
IN4004
IN4004
IN5624
IN5624
IN4004
IN4004
1000 MF 35 V
+
+SENSE STRAP
2000 MF 25 V
+
IN5230A
10Ω
5.6K
2N4123
10K
10K
20,000 MF 16 V
+
POWER SUPPLY
0080-904-E
2N4125
15
1K
2.2K
IN4004
10MF 16V
6000 MF 35 V
+
.1MF 50V
1K 1W
.47MF 25V TANT
.1MF 50 V
10MF 16 V TANT.
.1MF 50V
910
1.8K
27Ω
270
47PF
LM305A
2N2905
.1MF 50V
100Ω POT
+5V
470MF 16V
100Ω POT
+12V
100Ω POT
-5V
4.7 1/2W
.1MF 50V
.18 5W
36
270 1/2 W
100
470
BEAD
68 1/2W
78M12UC
2N3055
79M05UC




M5000–155, M7000–155 – Diagram Schematic